

INCH-POUND

MIL-DTL-24223/5(SH)

28 January 2014

SUPERSEDING

A-A-59002/5

31 May 1995

## DETAIL SPECIFICATION SHEET

LOUDSPEAKER, SHIPBOARD ANNOUNCING  
SYSTEMS ENCASED, 70 AND 95 VOLT, 10 VOLT-AMPERES

This specification is approved for use within the Naval Sea Systems Command, Department of the Navy, and is available for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and MIL-DTL-24223.

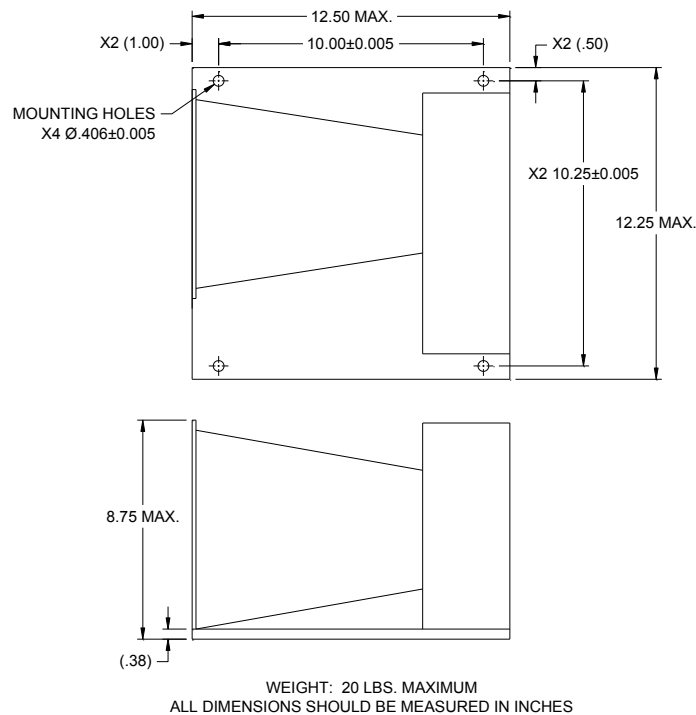


FIGURE 1. Mounting and envelope dimensions for LS-701()/SIC and LS-702()/SIC.

## PHYSICAL REQUIREMENTS:

Dimensions and weight: See FIGURE 1.

Cable entrance: Designed to accommodate cables entering through the rear enclosure via a shipbuilder installed stuffing tube. The cable entrance hole shall accommodate a stuffing tube, size 2, of ASTM F1836M.

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**Enclosure:** Mounting base shall not be less than 0.187-inch thick aluminum sheet alloy 5052-H32 in accordance with ASTM B209-10. A strip of not less than 0.187-inch thick aluminum alloy 5052-H32 in accordance with ASTM B209-10, approximately 1 inch wide, shall be welded to the bottom perimeter of the mounting base plate. An aluminum alloy grill, not less than 0.032-inch thick with openings not larger than  $\frac{1}{32}$  inch, shall cover the speaker front. The application for this type of loudspeaker is flight deck and well deck communication, exterior, unsheltered.

**Coatings:** Aluminum and aluminum alloy parts shall be pretreated and painted. The pretreatment shall be either anodized in accordance with MIL-A-8625, or chemically pretreated in accordance with MIL-DTL-5541. It shall then be primed with a single coat of epoxy primer conforming to MIL-PRF-23377, a second coat of epoxy paint formula 151 in accordance with MIL-DTL-24441, and two top coats silicone alkyd (haze gray) in accordance with MIL-PRF-24635.

**Speaker drivers:** Speaker driver assemblies shall not exceed one.

## PERFORMANCE REQUIREMENTS:

**Sound Pressure Output:** Minimum root mean square (rms) sound pressure output in decibel (dB) re 20 micropascals at rated input shall be as specified in TABLE I, at the distance specified in TABLE I, when measured in accordance with MIL-DTL-24223.

TABLE I. Minimum on-axis sound pressure (dB re 20 micropascals).

Nomenclature	Distance (FT)	Volt ampere input (max)	Warble bands (Hertz)					
			320 to 500	500 to 800	800 to 1,250	1,250 to 2,000	2,000 to 3,200	3,200 to 5,000
LS-701()/SIC *LS-702()/SIC	10	10	101	103	107	108	106	--

\*External volume control

**Frequency:** Response shall be within the solid limits over the band shown in FIGURE 2.

**Sound pressure distribution:** The speaker shall produce the minimum off-axis sound pressure shown in TABLE II relative to the on-axis sound pressure measured for the 800-1,250 Hertz (Hz) warble band at the distance shown in TABLE I.

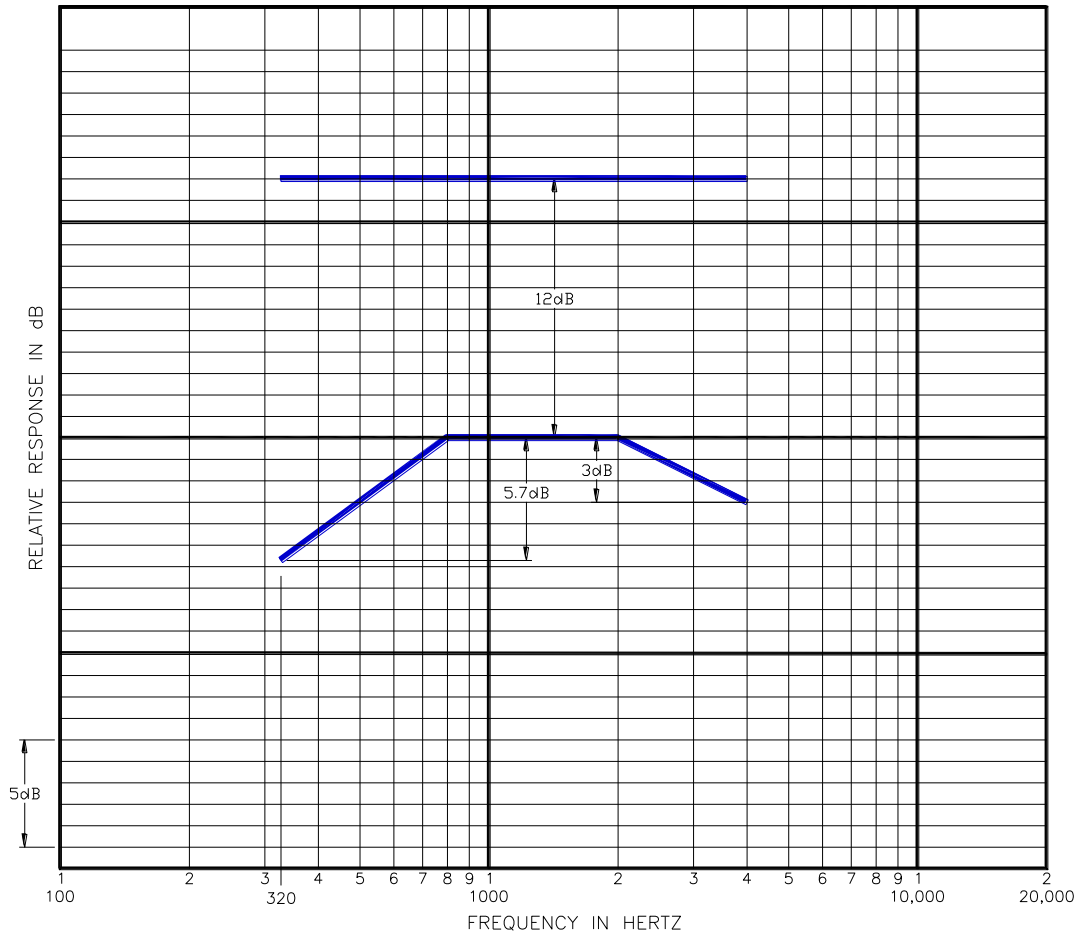
TABLE II. Off-axis sound pressure output.

Nomenclature	Decrease in relative sound pressure output (dB re 20 micropascals)	
	30 degree off-axis (horizontal plane)	30 degree off-axis (vertical plane)
LS-701()/SIC	5	5
LS-702()/SIC	5	5

**Volume control:** Loudspeakers shall be provided volume control in accordance with FIGURE 3A.

**Marking:** Marking shall be as specified in MIL-DTL-24223 and FIGURE 3A herein.

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FIGURE 2. Frequency response limits.

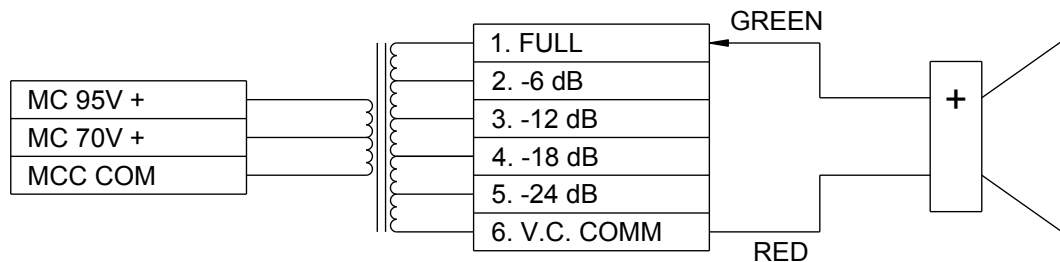
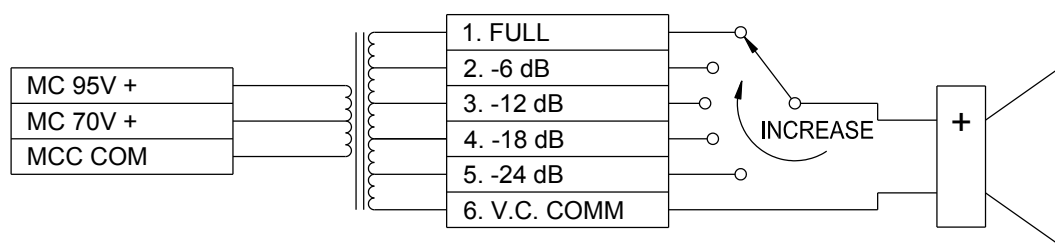
## ENVIRONMENTAL REQUIREMENTS:

Temperature: The operating temperature shall be -20.2 to 149 °F (-29 to 65 °C).

Gun blast: After gun blast testing, the equipment shall show no damage and meet the acoustic performance after salt spray, vibration, and shock tests requirements of MIL-DTL-24223, except the level shall be within 3 dB of the values measured before gun blast test. “Damage” is interpreted as evidence of rupture, fracture, tearing, or mechanical deformation that would impair the operation of the device.

Jet blast: After jet blast testing, the equipment shall show no damage and meet the acoustic performance after salt spray, vibration, and shock tests requirements of MIL-DTL-24223, except the level shall be within 3 dB of the values measured before the jet blast test. “Damage” is interpreted as evidence of rupture, fracture, tearing, or mechanical deformation that would impair the operation of the device.

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FIGURE 3A. Wiring diagram and terminal designations for internal volume control.FIGURE 3B. Wiring diagram and terminal designations for rotary switch volume control.

CHANGES FROM PREVIOUS ISSUE: Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

Preparing Activity:  
Navy – SH  
(Project 5965-2012-007)

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.dla.mil>.